What is claimed is:

1. A photoelectric conversion device having a layered structure, said layered structure comprising:

a carrier generation/multiplication layer composed of amorphous silicon to have both the function of absorbing light and generating carriers through optical excitation and the function of multiplying the generated carriers;

an electron injection inhibiting layer composed of an amorphous silicon carbide of the p-type conductivity to inhibit injection of electrons into the carrier generation/multiplication layer; and

a hole injection inhibiting layer composed of an amorphous silicon nitride of the n-type conductivity to inhibit injection of holes into the carrier generation/multiplication layer,

wherein said carrier generation/ multiplication layer is provided between said electron injection inhibiting layer and said hole injection inhibiting layer.

2. A photoelectric conversion device as claimed in claim 1, wherein a composition ratio C/Si of said electron injection inhibiting layer is adjusted appropriately to 1.5 or lower.

3. A ohotoelectric conversion device as claimed in claim 2, wherein an energy level at an interface between said amorphous silicon carbide layer and said amorphous silicon layer is discontinued on a conduction band side

and equal on a valence band side.

4. A photoelectric conversion device as claim 2, wherein said generation/multiplication layer is prevented from holes flowing out thereof, and is prevented from electron injection thereto.

5. A photoelectric conversion device as claim 1, wherein a composition ratio N/Si of said hole injection inhibiting layer is adjusted appropriately to 0.8 or lower.

6. A photoelectric conversion device as claim 5, wherein an energy level at an interface between said amorphous silicon nitride layer and said amorphous silicon layer is discontinued on a valence band side and equal on a conduction band side.

7. A photoelectric conversion device as claim 5, wherein said carrier generation/multiplication layer is prevented from electron flowing out thereof, and is prevented from hole injection thereto.

8. A photoelectric conversion device as claim 1, wherein said layered structure is formed on a surface of a substrate having at least said surface composed of polycrystalline silicon.

9. A photoelectric conversion device as claim 1, wherein said layered structure is formed on a surface of a substrate having at least said surface

composed of microcrystalline silicon.

10. A photoelectric conversion device as claim 1, wherein said layered structure is formed on a surface of a substrate having at least said surface composed of monocrystalline silicon.

11. A photoelectric conversion device as claimed in claim 1, wherein said layered structure is formed on a surface of a substrate having at least said surface composed of a metal.

12. A photoelectric conversion device as claimed in claim 1, wherein a small amount of boron is introduced into said carrier generation/ multiplication layer.

13. A photoelectric conversion device as claimed in claim 1, wherein said layered structure further comprises an electric field reducing layer for reducing an electric field adjacent an interface between said carrier generation/ multiplication layer and said electron injection inhibiting layer.

14. A photoelectric conversion device as claimed in claim 1, wherein said layered structure further comprises an electric field reducing layer for reducing an electric field adjacent an interface between said carrier generation/ multiplication layer and said hole injection inhibiting layer.

15. A photoelectric conversion device as claimed in claim 1, wherein said

layered structure consisting of said carrier generation/multiplication layer, said an electron injection inhibiting layer, and said hole injection inhibiting layer.

16. A solid-state image sensing device comprising:

a plurality of photoelectric conversion units each of which comprising:

a carrier generation/multiplication layer composed of amorphous silicon to have both the function of absorbing light and generating carriers through optical excitation and the function of multiplying the generated carriers;

an electron injection inhibiting layer composed of an amorphous silicon carbide of the p-type conductivity to inhibit injection of electrons into the carrier generation/multiplication layer; and

a hole injection inhibiting layer composed of an amorphous silicon nitride of the n-type conductivity to inhibit injection of holes into the carrier generation/multiplication layer,

wherein said carrier generation/multiplication layer is provided between said electron injection inhibiting layer and said hole injection inhibiting layer;

a plurality of accumulation units for respectively accumulating charges generated by said photoelectric conversion units; and

an output unit for outputting the charges accumulated in said accumulation units.

17. A photoelectric conversion device as claimed in claim 16, wherein a composition ratio C/Si of said electron injection inhibiting layer is adjusted appropriately to 1.5 or lower.

18. A photoelectric conversion device as claim 16, wherein a composition ratio N/Si of said hole injection inhibiting layer is adjusted appropriately to 0.8 or lower.

19. A photoelectric conversion device as claimed in claim 16, wherein said layered structure further comprises an electric field reducing layer for reducing an electric field adjacent an interface between said carrier generation/ multiplication layer and said hole injection inhibiting layer.

20. A photoelectric conversion device as claimed in claim 16, wherein said layered structure consisting of said carrier generation/multiplication layer, said an electron injection inhibiting layer, and said hole injection inhibiting layer.